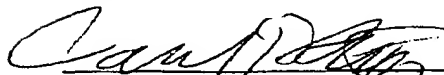


Respectfully submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATIONS

Pages 14a through 14j have been amended as follows:

~~FIG~~ TABLE 1

#1a	D.C. Motor
#2a	Pump
#3a	Actuator/Cylinder
#4a	Piston Rod
#3b	Actuator Cylinder Assembly

~~FIG~~ TABLE 2

# 1a	D.C. Motor
# 5a	Relay or Manual Switch
# 6a	Passage (Pump to piston cylinder to extend)
# 7a	Passage (Pump to Piston Cylinder for Retract)
# 4b	Piston
# 9a	Cylinder For Piston
# 4a	Piston Rod
# 8a	Passage (Reservoir To Pump Inlet)
# 2a	Pump
#13a	Reservoir
#45	Guide End
#41	Seal

~~FIG~~ TABLE 3 SCHEMATIC

#4a	Piston Rod
#4b	Piston
#3a	Actuator Cylinder
#10a	Extend
#11a	Retract
#6a	Passage To Piston Cylinder For Extend
#2a	Pump
#8a	Reservoir To Pump Inlet
#13a	Reservoir
#14a	Pump Cylinder End Cap
#15a	Pump Lower Chamber
#16a	Pump Upper Chamber
#7a	Passage To Piston Cylinder To Retract

14a

~~FIG.~~ TABLE 4 SCHEMATIC (LOCKED POSITION)

#4a	Piston Rod
#3a	Cylinder
#4b	Piston
#35	Drive Shaft Stationary
#18a	Check Valve (Closed)
#19a	Pilot Piston
#20a	Check Valve (No Spring-Closed)
#21a	Check Valve (Open)
#2a	Pump
#13a	Reservoir
#14a	Pump Cylinder End Cap
#23	Check Valve (Closed)
#24	End Cap
#25	Pilot Piston
#26	Cover
#34	Gear Housing
#28	Check Valve (No Spring-Closed)
#29	Cover
#30	Check Valve (Closed)
#31	End Cap
#15a	Pump Lower Chamber
#16a	Pump Upper Chamber
#8a	Passage Reservoir To Pump Inlet

~~FIG.~~ TABLE 5 SCHEMATIC (RETRACTED POSITION)

#4a	Piston Rod
#3a	Actuator
#4b	Piston
#18a	Check (Open)
#32	Pilot Piston
#20a	Check Valve (No Spring-Closed)
#21a	Check Valve (Open)
#2a	Pump
#13a	Reservoir
#14a	Pump Cylinder End Cap
#23	Check Valve (Closed)
#24	End Cap
#25	Pilot Piston
#34	Gear Housing
#28	Check Valve (No Spring-Open)
#29	Cover
#30	Check Valve (Closed)
#31	End Cap
#35	Drive Shaft
#8a	Passage Reservoir To Pump Inlet
#6a	Passage To Piston Cylinder To Extend
#7a	Passage To Piston Cylinder To Retract

~~FIG.~~ TABLE 6 SCHEMATIC (EXTENDED POSITION)

#4a	Piston Rod
#3a	Actuator
#4b	Piston
#35	Drive Shaft (Moving Clockwise)
#18a	Check Valve
#19a	Pilot Piston
#20a	Check Valve (No Spring – Open)
#21a	Check Valve (Closed)
#2a	Pump
#13a	Reservoir
#14a	Pump Cylinder End Cap
#23	Check valve (Open)
#24	End Cap
#25	Pilot Piston
#26	Cover
#34	Gear Housing
#28	Check Valve (No Spring-Closed)
#29	Cover
#30	Check Valve (Open)
#31	End Cap
#6a	Passage to Piston Cylinder to Extend
#7a	Passage to Piston Cylinder to Retract
#8a	Passage reservoir To Pump Inlet

~~FIG.~~ TABLE 7 MOTOR END OF PUMP WITHOUT PUMP RETAINER

#35	Drive Shaft
#37	Idler Shaft
#4c	Motor End of Pump (Without Pump Retainer)

~~FIG.~~ TABLE 8 TOP ONE HALF of PUMP WITH RETAINER

#35	Drive Shaft
#39	Pump Retainer
#18a	Check Valve
#2a	Pump
#31	End Cap
#29	Cover
#26	Cover
#24	End Cap
#25	Pilot Piston
#20a	Check Valve (No Spring)
#21a	Check Valve
#23	Check Valve
#19a	Pilot Piston
#40	Gear Only
#2a/39	Pump with Pump Retainer
#28	Check Valve (No Spring)
#30	Check Valve
#39a	Pump Retainer
#35	Drive Shaft

~~FIG.~~ TABLE 9

1a	Motor
#35	Drive Shaft to Motor
#40	Gear
#6a	Passage (pressure to extend)
#4a	Piston
#4b	Piston Rod
#7a	Passage to Piston Cylinder to Retract
#41	Seal
#24	End Cap
#13a	Oil Reservoir
#8a	Passage Inlet
#14a	Pump Cylinder End Cap
#37	Idler Shaft
#26	Cover
#2a	Pump
#42	Gear
#29	Cover
#43	Pump Retainer
#31	End Cap

~~FIG.~~ TABLE 10

#6a 7a	Passage to Cylinder for Extend Retract
#44	Plug
#4a	Piston Rod
#45	Guide End
#9a	CYL for Piston Rod
#13a	Oil Reservoir
#45a	O-Ring

~~FIG.~~ TABLE 11 DRIVE END PARTS

#46	Opening
#31	End Cap
#29	Cover
#47	Dowel Pin
#35	Drive Shaft
#37	Idler Shaft
#48	Dowel Pin
#25	Pilot Piston
#49	Outlet

~~FIG.~~ TABLE 12

#35	<u>Drive Shaft</u>
#47	<u>Dowel Pin</u>
#50	<u>Gear Key Ball</u>
#40	<u>Gear</u>
#34	<u>Gear Housing</u>
#21a	<u>Pilot Piston</u>
#26	<u>Cover</u>
#28	Check Valve (In Place)
#24	<u>End Cap</u>
#6a	<u>Opening</u>
#18a	Check Valve (In Place)
#20a	Check Valve (No Spring)
#42	<u>Gear</u>
#48	<u>Dowel Pin</u>
#53	<u>Gear Key Ball</u>
#37	<u>Idler Shaft</u>

~~FIG.~~ TABLE 13 (END CAP)

#46	Opening
#7a	Fluid Passage to Cylinder to Retract
#54	Hole For Dowel Pin
#30	Check Valve
#55	Hole For Dowel Pin
#49	Outlet Fluid Passage
#56	Check Valve Seat
#18a	Check Valve
#56a	Check Valve Seats
#31	End Cap

FIG. TABLE 14 (COVER)

#7a	Fluid Passage to Cylinder to Retract
#60	Hole For Idler Shaft
#7a	Fluid Passage
#54	Hole For Dowel Pin
#58	Hole For Drive Shaft
#20a	Check Valve (No Spring)
#55	Hole For Dowel Pin
#19a	Pilot Piston
#29	Cover

FIG. TABLE 15 PUMP

#2a	Pump
#39	Pump Retainer
#46	Opening
#35	Drive Shaft To Motor
#31	End Cap
#29	Cover
#34	Gear Housing
#26	Cover
#24	End Cap
#40	Gear
#58	Gear Key Ball
#6a	Opening
#59	Gear Key Ball
#42	Gear
#37	Idler Shaft

~~FIG.~~ TABLE 16

#42	Gear
#7a	Fluid Passageway
#53	Gear Key Ball
#40	Gear
#34	Gear Housing
#61	Dowel Pin
#35	Drive Shaft To Motor
#50	Gear Key Ball
#48	Dowel Pin
#7a	Fluid Passageway
#37	Idler Shaft

~~FIG.~~ TABLE 17 (Cover)

#7a	Fluid Passage
#60	Hole For Idler Shaft
#20a	Ball Valve (No Spring)
#46	Fluid Passage
#25	Pilot Piston
#54	Hole For Dowel Pin
#62	<u>Hole for</u> Drive Shaft
#55	Hole For Dowel Pin

~~FIG.~~ TABLE 18 END CAP

#53	Ball Valve
#50	Ball Valve
#7a	Fluid Passage
#54	Hole For Dowel Pin
#6a	Opening
#55	Hole For Dowel Pin
#7a	Fluid Passage

~~FIG.~~ TABLE 19

#3a	LOCKED/Actuator hydraulically locked into position
#2a/10a	EXTEND/Pump rotating clockwise
#2a/11a	RETRACT/Pump rotating counterclockwise

~~FIG.~~ TABLE 20

#63	(2) 3/8 – 16 UNC 0.375 DEEP
#64	Ø.625 2.500 ACROSS COUNTER SINKS
#65	Ø.625
#66	ROD END PER CUSTOMER SPECIFICATIONS
#67	5.72 + STROKE
#68	5.09 + STROKE
#70	3.75 MOTOR M300-1 3.82 MOTOR M300-2
#71	Ø2.50

~~FIG.~~ TABLE 21 ACTUATOR 125-35
Force, Speed Current Draw

#72	Force No's.
#73	Speed, in/sec
#74	Force extend
#75	Force Retract
#76	Speed Extend
#77	Speed Retract
#78	12 Volt DC

~~FIG.~~ TABLE 22

#3a	ACTUATOR 125-035 WEIGHT
#79	WEIGHT, LBS
#80	STROKE, IN

IN THE SPECIFICATIONS

Paragraph one on page 19 has been amended as follows:

Referring to Fig. 5 the position of the parts such as ball valves etc. are the result of counterclockwise (**ccw**) movement of the pump shaft (**35**) whereby pressure is developed in the lower half (**15a**) of the pump (**2a**) and moves fluid up the left outlet to the interior of the cylinder/actuator (**3a**) causing movement of the piston (**4b**) and connecting rod (**4a**) to the right to the retract position. At the same time the hydraulic fluid on the other side of the piston (~~**4a-4b**~~) is moving downwardly to the upper chamber (**16a**) and through the pump (**2a**) in a manner illustrated by the arrows and open position of the ball valves (**28, 18a, 20a**) and the arrows and the closed position of ball valves (**23, 30, ~~20a~~ 21a**).

IN THE SPECIFICATIONS

Paragraph two on page 19 has been amended as follows:

Referring to Fig. 6 the parts/components of the pump (**2a**) and the actuator (**3a**) are shown for clockwise (**cw**) movement of the drive shaft (**35**) resulting in movement to the left of the piston (**4b**) and the piston rod (**4a**) ~~as indicated by the arrow~~ (**3a**). The clockwise (**cw**) movement of the drive shaft (**35**) reverses the rotation of the pump, the direction of the flow of fluid and the direction of the exerted pressure causing the ball valves (**28, 18a, 21a**) that were open to become closed and the ball valves (**23, 30 20a**) that were closed to become open. As a

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result the fluid moves out of the actuator (3a) via the left side conduit and to the bottom half (15a) of the pump (2a) enclosure. Thus, as indicated above, the clockwise (cw) movement causes ball valves (23, 30, 20a) to open while ball valves (28, 18a, 21a) are closed.

IN THE SPECIFICATIONS

Paragraph two on page 21 has been amended as follows:

Referring to Fig. 9, the oil reservoir (13a), via the inlet (passage 8a), as connected fluidly to the central portion of the pump (2a), as quite clearly illustrated; as are the outlets respectively identified as passageway (6a and 7a). Now as shown in Figs. 2 and 9, passage (6a) connects the outlet of the pump (2a) to the actuator cylinder (3a) on the extended side of the piston (2a) to achieve extension of the piston rod (4b); while passage (7a) connects the pump outlet a (assuming counterclockwise (ccw) movement of the drive shaft) to carry the liquid to the cylinder, as shown, at the extremity of the cylinder to achieve movement of the piston/shaft (4b/4a) to the left and thus in a retracting movement.

IN THE SPECIFICATIONS

Paragraph three on page 21 has been amended as follows:

Fig. 8 is a sectional view of the top half of the pump (2a) and shows clearly the pump retainers (14a/39) at each end and exteriorly of the end cap members (31/34 24).

IN THE SPECIFICATIONS

Paragraph three on page 23 has been amended as follows:

Fig. 17 is useful in understanding the construction of the right hand cover member (26) adjacent the gear housing (34), and, as well, the holes (54/55) for seating the dowel pins for registration plus the machined holes (60/62) for the drive shaft (35) and idler shaft (~~60~~ 37) are shown.

VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the claims:

Claim 1 has been amended as follows:

1. (Amended) An improved hydraulic gear pump adapted to be mounted in an enclosed cavity; said pump comprising a gear housing and means on either side of the housing, along a longitudinal axis,

~~A~~ a pair of intermeshing gears in the gear housing carried by a drive shaft and an idler shaft said drive shaft being drivingly connected to the intermeshing gears and parallel to said axis. , whereby movement of said gears in intermeshing relationship creates the internal fluid pressure within said pump.

~~S~~said means, on each side being hydraulically clamped to each side of the gear housing by the pumps generated pressure of the fluid surrounding the pump in the cavity,

~~S~~said outside pressurized axial area being larger than the inside pressurized axial area of the means.

2. (Amended) ~~a~~A gear pump consisting of a front and rear covers, gear housing and a pair of gears placed axially along a drive and idler shaft ~~intended~~ adapted to be placed in a closed cavity containing fluid thereby and surrounded by the pumps generated pressure holding the pump together axially by forcing the end covers against the gear housing, said drive shaft protrudes through the cavity at one end and a suction port is placed in the opposite end of the cavity.